

Application No.: 10/772,434

Attorney Docket No.: 333 772000800
(PATENT)

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REMARKS/ARGUMENTS

Claims 1-23 are pending in the present application. By virtue of this response, claim 1 has been amended, no claim has been canceled, and no new claim has been added. Accordingly, claims 1-23 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented.

Claim Rejections – 35 U.S.C. § 103

A) Claims 1-3, 5-6, 8-16 and 19-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hollander (U.S. Patent Application Publication No. 2002/0073375 A1, hereinafter the Hollander reference) in view of Botola et al. (U.S. Patent No. 6,868,513 B1, hereinafter the Botola reference). Applicants respectfully traverse these rejections.

In response, Applicants submit that the Hollander and Botola references, either individually or in combination, do not disclose at least the elements “wherein describing test system configuration comprises specifying a site controller for controlling at least one test module, and wherein each test module includes vendor-supplied hardware and software components for applying a test to the IC, wherein each vendor-specific software module comprises a module-specific compiler for generating test pattern objects” as recited in the amended claim 1 of the present application. In particular, the cited references fail to disclose integrating vendor-supplied hardware and software modules into an open system architecture using a standard module interface. The standard module interface includes commands that enable users to communicate with a particular hardware module in the system, and commands that enable third-party developers to integrate their own modules into the site controller level framework. The present invention further describes a module-specific compiler for generating test patterns objects for applying at least a test to the semiconductor integrated circuit.

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The present invention is distinguished from the references cited in the Office Action because the support of vendor-supplied modules with a module-specific compiler for generating test pattern objects allows the semiconductor test system to be an open architecture test system. The objective of such open architecture test system is to solve the long-felt need for a flexible and scalable semiconductor test system. As described in the background section of the pending application, conventional semiconductor test systems are developed in tester manufacturers' proprietary languages. Under such conventional testing environment, each time a new semiconductor integrated circuit needs to be tested, or each time a new test module is needed to test a semiconductor integrated circuit, since both of the new semiconductor integrated circuit and the new test module are typically provided by different vendors, significant amount of time and engineering resources are required to integrate the new test module into the conventional semiconductor test systems. The ability to integrate vendor-specific test modules into the semiconductor test system as described in the pending application addresses this problem in the conventional semiconductor test systems.

In various embodiments of the present application, the specification describes the testing of the Pentium microprocessor designed by Intel Corporation. A person skilled in the art would appreciate that a microprocessor may be used to control many different components in a computer system, such as the memory (DRAM, SRAM, Flash, etc.), I/O (Ethernet, USB, etc.), graphics card, sound card, and hard disk drive (HDD). Each of these components is typically provided by a different vendor. In other words, to test a microprocessor, the semiconductor test system needs to integrate test modules supplied by different vendors. For example, in paragraphs [0095], [0176], [0194], [0216], and [0219] of the specification, various approaches for developing test programs for testing the Pentium microprocessor are described.

The amendments of claim 1 are supported by at least Figure 6 of the present application and its corresponding descriptions on pages 14-15 and 151-161. Specifically, the amendments of claim 1 are supported by paragraphs [0064]-[0065] and [0372]-[0377] of the pending application.

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Therefore, for at least the reasons presented above, Applicants assert that claim 1 is allowable over the combination of the cited references. Applicants also assert that claims 2-3, 5-6, 8-16 and 19-23, which variously depend from the independent claim 1, are allowable for at least the reason that they depend from an allowable independent claim.

B) Claims 4 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hollander (U.S. Patent Application Publication No. 2002/0073375 A1) and Botala et al. (U.S. Patent No. 6,868,513 B1) in further view of National Instruments ("Matrix Switch Expansion Guide).

In response, Applicants assert that claims 4 and 7, which variously depend from the independent claim 1, are allowable for at least the reason that they depend from an allowable independent claim.

C) Claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hollander (U.S. Patent Application Publication No. 2002/0073375 A1) and Botala et al. (U.S. Patent No. 6,868,513 B1) in further view of Schauss et al. (U.S. Patent No. 5,181,201).

In response, Applicants assert that claim 17, which variously depends from the independent claim 1, is allowable for at least the reason that it depends from an allowable independent claim.

Claims Rejected - 35 U.S.C. 101

Claims 1-23 still stand rejected under 35 U.S.C. 101.

In response, Applicants have amended claim 1 to include the element "storing the test program in memory of the semiconductor test system". This amendment is supported by at least paragraphs [0006] and [0043] of the pending application. In view of this amendment, Applicants respectfully request the rejection under 35 U.S.C. 101 be withdrawn.

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CONCLUSIONS

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing Docket No. 333772000800. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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